

# 6JD6

## Sharp-Cutoff Pentode

### 9-PIN MINIATURE TYPE FRAME-GRID CONSTRUCTION

For Use as High-Gain Intermediate-Frequency-Amplifier  
Tube in Television Receivers. No External Shield Re-  
quired. Cutoff Characteristic Approaching Semiremote.

#### GENERAL DATA

##### Electrical:

##### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . .  $6.3 \pm 0.6$  volts  
Current at heater volts = 6.3 . . . . . 0.300 amp

##### Peak heater-cathode voltage:

Heater negative with  
respect to cathode . . . . . 200 max. volts

Heater positive with  
respect to cathode . . . . . 200<sup>a</sup> max. volts

##### Direct Interelectrode Capacitances:<sup>b</sup>

Grid No.1 to plate . . . . . 0.019 max. pf

Grid No.1 to cathode, grid No.3 &  
internal shield, grid No.2,  
and heater . . . . . 8.2 pf

Plate to cathode, grid No.3 &  
internal shield, grid No.2,  
and heater . . . . . 3.0 pf

##### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Supply Voltage . . . . . 125 volts

Grid-No.3 Voltage . . . . . 0 volts

Grid-No.2 Supply Voltage . . . . . 125 volts

Grid-No.1 Supply Voltage . . . . . 0 volts

Cathode Resistor . . . . . 56 ohms

Plate Resistance (Approx.) . . . . . 160000 ohms

Transconductance . . . . . 14000  $\mu$ mhos

Plate Current . . . . . 15 ma

Grid-No.2 Current . . . . . 4 ma

Grid-No.1 Voltage (Approx.) for  
transconductance ( $\mu$ mhos) = 600 . . . . -4.5 volts

##### Mechanical:

Operating Position . . . . . Any

Type of Cathode . . . . . Coated Unipotential

Maximum Overall Length . . . . . 2-3/16"

Maximum Seated Length . . . . . 1-15/16"

Length, Base Seat to Bulb Top  
(Excluding tip) . . . . . 1-9/16"  $\pm$  3/32"

Diameter . . . . . 0.750" to 0.875"

Dimensional Outline . . . . . See General Section

Bulb . . . . . T6-1/2

Base . . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)



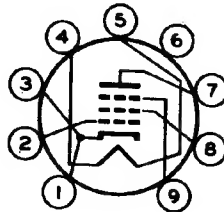
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DATA 1  
4-63

# 6JD6

Basing Designation for BOTTOM VIEW. . . . . 9PM

Pin 1 -Cathode  
Pin 2 -Grid No.1  
Pin 3 -Cathode  
Pin 4 -Heater  
Pin 5 -Heater  
Pin 6 -No Internal  
Connection



Pin 7 -Plate  
Pin 8 -Grid No.2  
Pin 9 -Grid No.3  
Internal  
Shield

## AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE . . . . . 330 max. volts  
GRID-NO.3 (SUPPRESSOR-GRID) VOLTAGE:  
Positive value. . . . . 0 max. volts  
GRID-NO.2 (SCREEN-GRID) SUPPLY VOLTAGE. . . 330 max. volts  
GRID-NO.2 VOLTAGE . . . . . See *Grid-No.2 Input Rating Chart*  
at front of Receiving Tube Section  
GRID-NO.1 (CONTROL-GRID) VOLTAGE:  
Positive-bias value . . . . . 0 max. volts  
GRID-NO.2 INPUT:  
For grid-No.2 voltages  
up to 165 volts . . . . . 0.6 max. watt  
For grid-No.2 voltages  
between 165 and 330 volts . See *Grid-No.2 Input Rating Chart*  
at front of Receiving Tube Section  
PLATE DISSIPATION . . . . . 2.5 max. watts

### Maximum Circuit Values:

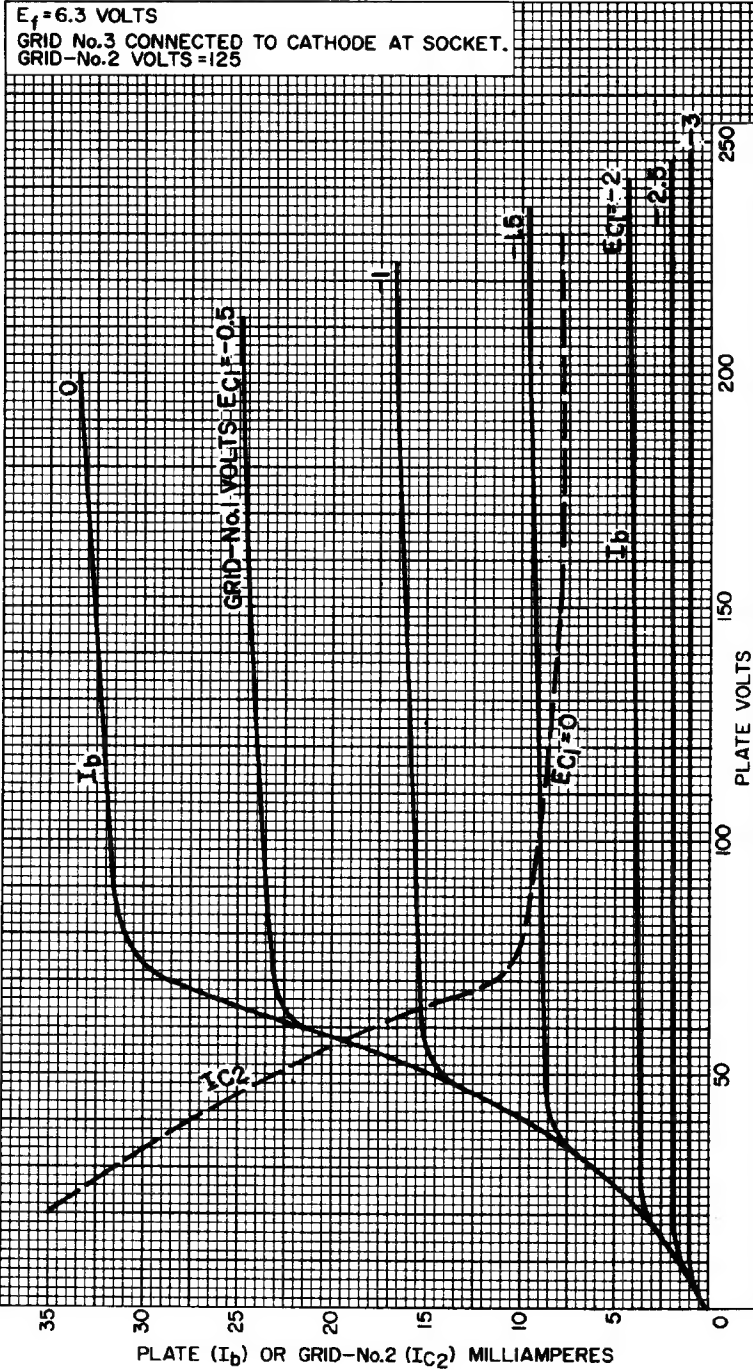
Grid-No.1-Circuit Resistance:  
For fixed-bias operation. . . . . 0.25 max. megohm  
For cathode-bias operation. . . . . 1 max. megohm

- <sup>a</sup> The dc component must not exceed 100 volts.  
<sup>b</sup> without external shield.



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## AVERAGE CHARACTERISTICS



92CM-11951

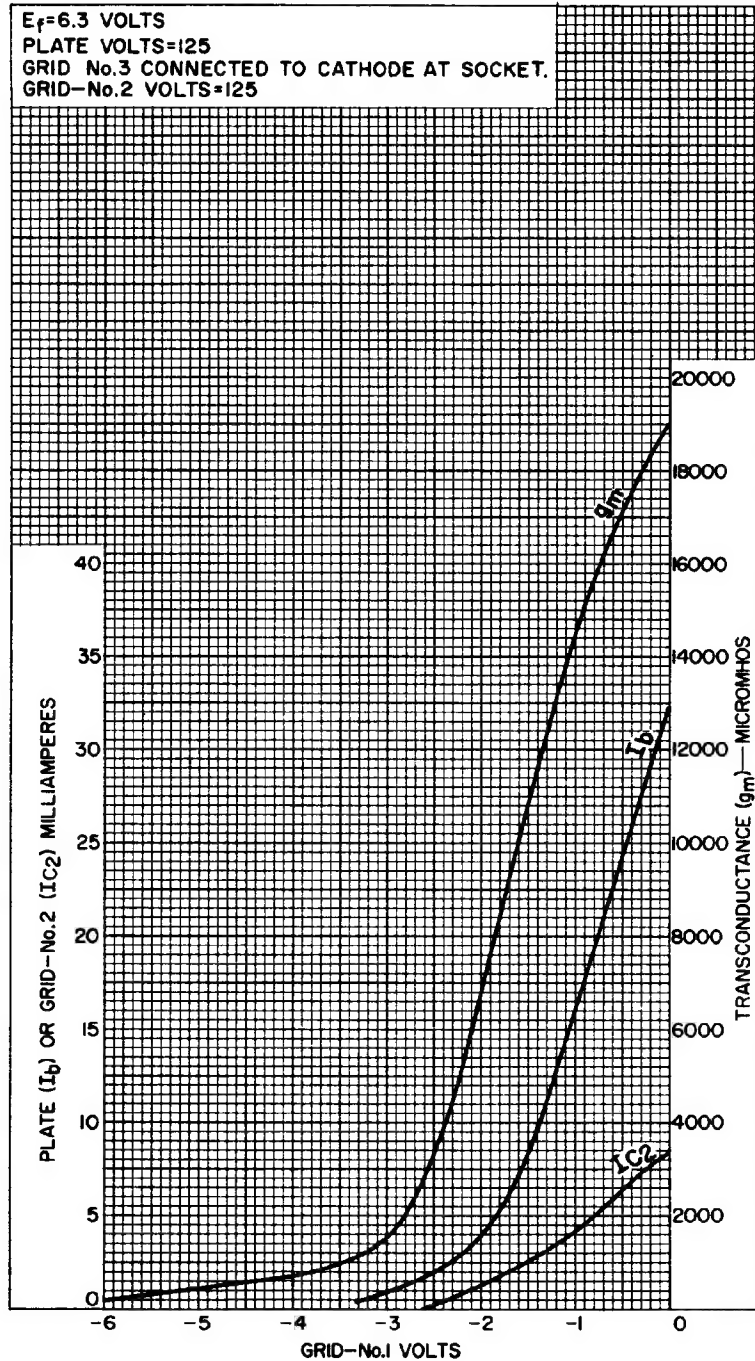


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DATA 2  
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## AVERAGE CHARACTERISTICS



92CM-11952R1

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